PTO/SB/21 (08-00) Approved for use through 10/31/2002. OMB 0651-0031 **Age** type a plus sign (+) inside this box ──> [+] U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE er the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** 10/713,650 TRANSMITTAL November 14, 2003 Filing Date **FORM** First Named Inventor **McGROGAN** (to be used for all correspondence after initial filing) Group Art Unit 2186 Not Yet Assigned **Examiner Name** Total Number of Pages in This Submission Attorney Docket Number 0515805.0101 ENCLOSURES (check all that apply) Assignment Papers After Allowance Communication to Fee Transmittal Form (for an Application) Group Appeal Communication to Board of Fee Attached ☐ Drawing(s) Appeals and Interferences Appeal Communication to Group Amendment / Response Declaration of Mailing by Express Mail (Appeal Notice, Brief, Reply Brief) Revised Petition to Make Special After Final Proprietary Information Petition to Convert to a Affidavits/declaration(s) Status Letter Provisional Application Power of Attorney, Revocation Other Enclosure(s) Combined Declaration and Power of Change of Correspondence Address Attorney (please identify below): **Return Receipt Postcard** Terminal Disclaimer Request for Reconsideration of Express Abandonment Request Request for Refund Petition Copy of Decision on Petition to Information Disclosure Statement CD, Number of CD(s) Make Special Certified Copy of Priority Remarks Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Stephen C. Glazier (Registration No. 31,361) Kirkpatrick & Lockhart LLP Individual name 7 Derok

CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date: Typed or printed name Saglie-Bone

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in re Application of: McGROGAN, Stephen K.

Group Art Unit: 2186

Application No.: 10/713,650

Examiner: Not yet assigned

Filed: November 14, 2003

Atty. Dkt. No. 0515805.0101

Title: SEGMENTED GLOBAL AREA DATABASE

REVISED PETITION TO MAKE SPECIAL UNDER 37 CFR §1.102(d)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313

Sir:

Applicants hereby petition to make the above-identified U.S. patent application special pursuant to MPEP §708.02(VIII). Applicants have submitted herein a detailed discussion of the references, which discussion points out, with the particularity required by 37 C.F.R. §1.111(b) and (c), how the claimed subject matter is patentable over the references pursuant to MPEP §708.02(VIII).

All claims are directed to a single invention. If it is determined that the pending claims are not directed to a single invention, applicants will make an election without traverse as required under MPEP §708.02(VIII)(B).

Applicants submit that a pre-examination search has been made by a professional searcher in the following classes:

Class 707, subclasses 1, 2, 10, 104.1, 200

Class 711, subclasses 6, 118, 147, 203

The following references are deemed to be the most closely related to the subject matter encompassed by the present claims. Copies of the references were enclosed with the Petition to Make Special filed on May 13, 2004, and are, therefore, not attached hereto.

U.S. Patent No.

Inventor(s)

4,805,134	Calo et al.
5,426,747	Weinreb et al.
5,455,942	Mohan et al.
5,560,006	Layden et al.

DETAILED DISCUSSION OF THE REFERENCES

U.S. Patent 4,805,134 (Calo et al.)

Calo et al. discloses a host that deals primarily with Videotex pages as its object of manipulation and utilizes a system of host caching. The pages are stored in a relational table controlled by a relational database management system. After a page is retrieved, it is optionally buffered in virtual memory (i.e., cache memory), thereby decreasing subsequent retrieval times (see column 18, lines 33-46).

U.S. Patent 5,426,747 (Weinreb et al.)

Weinreb et al. discloses an apparatus and method for virtual memory mapping and transaction management for an object-oriented database system having at least one permanent storage means for storing data and at least one database, at least cache memory for temporarily storing data addressed by physical addresses, and a processing unit including means for requesting data utilizing virtual addresses to access data in the cache memory, means for mapping virtual addresses to physical addresses and means for detecting when data requested by the requesting means is not available at the virtual address utilized (see column 2, lines 24-38).

U.S. Patent 5,455,942 (Mohan et al.)

Mohan et al. discloses in Figure 2 a high-speed, shared electronic store-in cache (store) 20 connected to database management processors 22 and 24, each of which include working memory in which a reserved addressable area comprises a buffer used by a locally-executing DBMS. Each of the processors 22 and 24 are coupled to a secondary storage 26. A directory 34 is maintained by management logic 30 to manage the contents of shared cache 32. The directory 34 is a table of multi-field entries, with each entry corresponding to a page. When a DBMS

needs data, it first attempts to read it from the store 20, and if unsuccessful, then attempts to obtain the data from the secondary storage 26. Each attempt by the DBMS to read data from the store 20 results in management logic 30 inspecting the directory 34 for an entry corresponding to the requested page. If there is no entry for the page in the directory 34, the management logic 30 will create one, anticipating entry of the page into the shared cache 32. When the DBMS obtains the page from the secondary storage 26, it will process the page as required, and pass the page as a changed page to the store 20 for caching and maintaining coherency (see column 3, line 41 – column 4, line 12).

U.S. Patent 5,560,006 (Layden et al.)

Layden et al. discloses an entity-relation database system including a plurality of entity fields containing arrays of data elements, the data elements being related to each other in predefined sets, with each predefined set including data elements in at least two of the entity fields. At least one linked list defines the relationship between data elements between each of the predefined sets and provides a means for retrieving all of the elements of any selected predefined set from the two entity fields (see abstract). The system is preferably maintained in memory devices that permit access in the shortest possible period of time, including, through the use of virtual memory mechanisms, fast access memory devices (see column 5, lines 28-39).

THE PRESENT APPLICATION

Embodiments of the present invention relate to, among other things, memory management methods and systems for object-oriented databases. For example, independent claim 3 recites a method for an application program to manage memory associated with an object-oriented database accessed by the application program, the method comprising connecting to a data repository of the database, the data repository including a plurality of memory-mapped file segments stored on at least one nonvolatile memory medium; registering a fault handler with the operating system, the fault handler associated with the data repository; catching, by the fault handler, a segmentation fault issued for an object referenced by the application program and resident in the data repository, the segmentation fault issued at an interrupt location in the

application program; finding a file segment of the data repository that corresponds to the referenced object; mapping the found file segment into a main memory; and restarting the application program at the interrupt location. Independent claims 1, 30, 33 and 35 recite similar claim elements.

Calo et al., Weinreb et al., Mohan et al. and Layden et al., alone or in combination, fail to disclose or suggest all of the claim elements discussed above included in independent claims 1, 3, 30, 33 and 35.

Therefore, the present application claims subject matter which is not disclosed, taught or suggested by the foregoing references and is patentable in light thereof. Accordingly, granting of the Petition to Make Special and expedited examination of the claims in the present application are earnestly solicited.

Respectfully submitted,

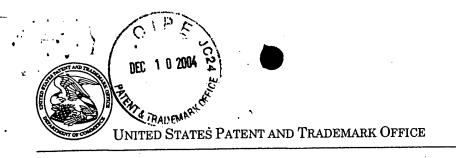
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Technology Center 2100

In re Application of: McGrogan Application No. 10/713,650 Filed: November 14, 2003

For: SEGMENTED GLOBAL AREA

DATABASE

DECISION ON PETITION TO MAKE SPECIAL (ACCELERATED EXAMINATION) UNDER M.P.E.P. §708.02 (VIII)

This is a response to the petition filed May 13, 2004, under 37 C.F.R. §1.102(d) and M.P.E.P. §708.02 (VIII): Accelerated Examination, to make the above-identified application special.

The Petition is **DISMISSED**.

M.P.E.P. 708.02, Section VIII which sets out the prerequisites for a grantable petition for Accelerated Examination under 37 C.F.R. §1.102(d) states in relevant part:

A new application (one which has not received any examination by the examiner) may be granted special status provided that applicant (and this term includes applicant's attorney or agent) complies with each of the following items:

- (a) Submits a petition to make special accompanied by the fee set forth in 37 CFR 1.17(h);
- (b) Presents all claims directed to a single invention, or if the Office determines that all the claims presented are not obviously directed to a single invention, will make an election without traverse as a prerequisite to the grant of special status;
- (c) Submits a statement(s) that a pre-examination search was made, listing the field of search by class and subclass, publication, Chemical Abstracts, foreign patents, etc. The pre-examination search must be directed to the invention as claimed in the application for which special status is requested. A search made by a foreign patent office satisfies this requirement;

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- (d) Submits one copy each of the references deemed most closely related to the subject matter encompassed by the claims if said references are not already of record; and
- (e) Submits a detailed discussion of the references, which discussion points out, with the particularity required by 37 CFR 1.111 (b) and (c), how the claimed subject matter is patentable over the references.

The petition filed May 13, 2004 fails to adequately meet requirement (e) of the criteria set forth above. With respect to requirement (e), a complete detailed discussion of the (identified most closely related) references has not been provided with the necessary specificity required under 37 CFR 1.111 (b) and (c). Specifically, Petitioner should ensure that the above discussion is directed to how the language of the independent claim(s) is (are) specifically distinguishable and patentable from the references provided in requirement (d) above. Note, it appears from Petition's discussion that a comparison of the language of dependent claim 5 has been made, rather than a discussion relating to the language found in independent claims 1, 3, 30, 33 and 35.

Petition to Make Special **DISMISSED**.

Petitioner is given one opportunity to perfect the petition. Any request for reconsideration must be filed within TWO MONTHS of the mail date of this decision. Extensions of time under 37 CFR 1.136(a) are permitted by a declaration or statement providing the information as outlined above.

Until the renewed petition is submitted, the application will be returned to the examiner's docket to await treatment on the merits in the normal order of examination.

Brian L. Johnson

Special Program Examiner Technology Center 2100

Computer Architecture, Software and Information Security

703-308-0885

BLJ: 10/27/04



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: McGROGAN, Stephen K.

Group Art Unit: 2186

Application No.: 10/713,650

Examiner: Not yet assigned

Filed: November 14, 2003

Atty. Dkt. No.: 0515805.0101

Title: SEGMENTED GLOBAL AREA DATABASE

Mail Stop Petition Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

REQUEST FOR RECONSIDERATION OF PETITION UNDER 37 CFR §1.102(d)

Sir:

Applicants request reconsideration of the Petition to make the above-identified U.S. patent application special pursuant to MPEP §708.02(VIII), and the ensuing Decision dismissing the Petition mailed on November 5, 2004, a copy of which is attached hereto.

Attached herewith is a revised Petition to Make Special under 37 CFR §1.102(d). The revised Petition complies with the requirements set forth in the Decision. Specifically, the revised Petition includes a discussion of how all of the independent claims in the present application are specifically distinguishable and patentable from the references cited in the Petition.

McGROGAN - Appln. 10/713,650 Page 2 of 2

Applicants respectfully request that the revised Petition under 37 CFR §1.102(d) be granted, and that the present application be promptly examined. Please apply any necessary additional charges or credits to Deposit Account No. 50-1721.

Respectfully submitted,

> becoy

tephen C. Glazie

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Date: _____

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